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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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SUBJECT	1. Defective Products of the Chinese Communist Ministry of Light Industry 2. First National Foundry Conference, Peiping	DATE DISTR.	9 September 1953
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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

25X1 1. In April 1953 the Committee of Finance and Economics, Chinese Communist Government Administration Council, instructed the Ministry of Light Industry to take measures to improve the quality of products manufactured under its direction and to reduce production costs.

2. In its instructions to the ministry, the Committee of Finance and Economics cited the following specific examples of products that were deficient in quality:

a. Automobile tires produced during 1952 by state-operated factories tended to wear quickly and were highly susceptible to puncture, cracking and cutting by the wheel rims.

b. The shoe surface and the soles of the rubber shoes produced by the Number 1 and Number 2 Northeast Rubber Factories cracked easily. Shoes produced by these factories were considered by the Committee to be the most defective of all rubber shoes produced throughout China; wearers of the shoes named them "week shoes," because they were not serviceable after seven days' use. After ten days' use, 800,000 pairs of shoes out of a total of 875,000 pairs produced during 1952 by the Number 8 Northeast Rubber Factory were no longer serviceable.

c. Products of certain state-operated cigarette factories in Shanghai and Northeast China had suffered considerably in quality, particularly the Chung Hua (0022/5478) and Ha Te Men (0761/1795/7024) brands. The quality of tobacco used in these two brands was 40 percent below the quality of the tobacco previously used. Sales of these cigarettes had declined.

d. Paper produced by state-operated mills exhibited defects in appearance,

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such as black spots, yellow stains, wrinkles, and poring (sic). The paper lacked fiber uniformity and was of low tensile strength. A spot inspection of four reams of poster paper produced by the Hsuanhua (N 40-37, E 115-01) Paper Mill resulted in the discovery of 52 pieces of damaged or unacceptable paper in one ream and 48 pieces of damaged paper in a second ream. The ream with the lowest number of damaged sheets contained 38 pieces of unacceptable paper.

e. The ephedrine grease produced by the state-operated Kueisui (N 40-47, E 111-37) Licorice Root Factory contained a low percentage of ephedrine. Twenty-six tons of ephedrine grease were needed to extract five kilograms of ephedrine.

f. In the ampoules produced by the new chemicals and pharmaceuticals plant in Peiping, one cubic centimeter of solu-stibosan[1] yielded only two milligrams of 5-valence antimony. Persons receiving injections of solu-stibosan suffered unfavorable effects.

3. The Committee, in its instructions to the Ministry, stated that these situations arose because management cadres sought only to increase production and were not concerned with product quality and because production staffs lacked technical experience and a quality control system. The Committee advised the Ministry to establish product-quality standards, improve the technical staffs of the factories, strengthen factory planning and experimental programs, provide factory staff members with technical training, undertake specific cost analyses to reduce expenditure by six to ten percent, and improve cost management work to permit gradual adoption of machine calculation costs.

4. Between 15 and 21 March 1953 the Chinese Communist First Ministry of Machine Industry convened the first National Foundry Conference in Peiping. The conference, under the direction of HUANG Ching (7806/2417),[2] Minister of the First Ministry of Machine Industry, was attended by more than 500 factory representatives. Soviet experts were consultants at the conference. The Ministry called the conference after discovery of widespread waste and deficient product quality in machine plants.

5. The principal addresses of the conference included "A Report on the Special Subject of the Ch'ung T'ien (0394/1131) Furnace"[3] by Hsieh-la-k'u-no-fu (2438/2139/1655/6179/1133) and "An Introduction of the Northeast's Natural Canister" by the Ch'angch'un (N 43-53, E 125-20) Synthetic Research Institute, Northeast Branch, Academia Sinica. At the conclusion of the conference Hsieh-chieh-erh-ni-k'o-fu (6200/0267/1422/1441/0668/1133)[4] and Hsieh-la-k'u-no-fu answered questions raised by the factory representatives.

6. Hsieh-la-k'u-no-fu's report defined the following problems for which Chinese foundries[5] should find an early solution:

a. Adaption of the Ch'ung T'ien furnace to enable the furnace to be equipped with two or three air-ducts (p'ai feng k'ou, 2226/7364/0656).

b. Removal of the intermediate iron outlet trough (ch'u t'ieh'ts'ao, 0427/6993/2864) to permit the front entrance to be connected directly with the Ch'ung T'ien furnace.

c. Establishment of a chemical laboratory in each foundry and of an analysis laboratory in each steel foundry.

d. Preparation of handbooks for all foundry machine rooms, with adequate discussion in the handbooks of smelting material calculations, weights of metal and fuel layers, and quantities of material to be loaded and distributed.

e. Development of a proper cast-pouring process, including preparation by the molding unit prior to smelting of molding charts indicating the weight of the melted iron, cast-pouring temperature, and the metal number of the spare part to be cast; in cases of large-sized spare parts and principal spare parts, the molding chart should be transmitted to the smelting unit to enable the cast-pouring to be executed according to technical requirements.

7. Hsieh-la-k'u'no-fu commented as follows on certain Chinese procedures:

a. The practice of the Peiping Machine Factory of adding equal portions of limestone and fluorspar in the Ch'ung T'ien furnace smelting process was not according to the standard Ch'ung T'ien furnace smelting procedure.

b. The iron inlet trough (chin t'ieh ts'ao, 6651/6993/2864) of the Ch'ung T'ien furnace at the Woosung (N 31-23, E 121-31) Machine Factory[6] was very large, about 35 millimeters in diameter, and the slag outlet trough (ch'u cha ts'ao 0427/3257/2864) was very large, between 15 and 20 millimeters in diameter. The removal of sediment had therefore become difficult, and ejection of melted iron from the iron inlet trough under high pressure had made it impossible for the melted iron to be put in small parcels (hsiao pao, 1420/0545), and closing of the iron outlet had been made very difficult.[7]

c. In the majority of Chinese factories the spheroidization (ch'iu hua, 3808/0553) pig-iron process[8] used included placement of magnesium directly into the receptacle (k'ai k'ou pao, 7030/0656/0545); the resulting intense purple light was injurious to the eyes of the workers. Moreover, during the spheroidization process the magnesium oxide produced yielded a thick white smoke which was injurious to the workers. Injection of magnesium into melted iron may result in serious scalding to the workers. These processes should be executed within a particularly tight cover or a small room with ventilation equipment.

25X1 1. [redacted] Comment. This drug is probably related to stibophen, an organic antimony compound used in treatment of diseases prevalent in the Far East and known in the United States under the trade name of Fuadin.

25X1 [redacted] Comments

2. HUANG, mayor of Tientsin until some time after the middle of 1952, was transferred to the Ministry of Mechanical Industry, according to the

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3. No information is available on the Ch'ung T'ien furnace or the Ch'ung T'ien process referred to throughout this report. From the description given, the furnace is apparently similar to the small blast furnace known as a cupola furnace.

4. Hsieh-chieh-erh-ni-k'o-fu, not further identified in the report, may be the Soviet Shchenkov (fnu), who was chief engineer of the Ch'angch'un Railway as of 23 June 1953, according to available information.

5. Although the term "foundries" is used here, it will be noted that the following information concerns not only casting (the usual activity at a foundry) but also smelting. There is no apparent explanation for the use of the term "front furnace" in part "b" of para. 6, nor is there any apparent reason for connecting the two furnaces.

25X1 6. [redacted] Comment. A Peiping broadcast of 12 May 1953, [redacted] praised the Woosung Machine Factory for its high rate of production of "complex machinery." 25X1

Comments

7. This paragraph is given as received. In both cases where the word "millimeters" is used, "centimeters" is probably meant.

8. The spheroidization process is also known as the nodular iron process.